

TISSUE-SPECIFIC EXPRESSION OF TARGET GENES IN PLANTS

Abstract of the Invention

Methods of producing plants having ^{ROOT} ~~tissue~~-specific expression of one or more target genes are taught, as are methods of producing plants having ^{ROOT} ~~tissue~~-specific and ^{Stress induced} ~~environmental or developmentally-regulated~~ expression of one or more target genes. A genetic construct is taught which contains a ^{target} ~~nitrogen-assimilation and/or metabolism~~ gene and a promoter for the gene which is inducible under ^{Stress induced,} ~~conditions where it would be~~ beneficial to take up, store or use nitrogen. The promoter can be, for example, induced by the presence of ^{INS A2} ~~nitrate or other form of nitrogen and will be induced by application of~~ ^{USE of the} ~~a nitrogenous fertilizer~~. The stress inducible promoter btg-26 is also taught. Promoter btg-26 is isolated from the *Brassica turgor* gene - 26 and exhibits ~~osmotic~~-stress-induced and tissue-specific expression of an operatively linked gene.